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| DECLARATION FO | R UTILITY OR | Attorney | Docket Nun | nber | 710101-118 | 0 |
|--|--|------------------------|----------------------|-----------|------------------------|-----------------------|
| DESIGN | | First Nan | ned Inventor | | | al. |
| PATENT APPLICATION (37 CFR 1.63) | | | COMPLETE IF KNOWN | | | |
| (37 CFR | 1.63) - | Application | n Number | | | |
| X Declaration | Declaration | Filing Da | te | حور | tember 22. | ാനാ2 |
| Submitted OR with Initial | Submitted after Initia Filing (surcharge | Group Ar | t Unit | - | remoci aa, | 2005 |
| Filing | (37 CFR 1.16(e)) | | | | | |
| _ | required) | Examine | Name | | | |
| As a below named inventor, I he | reby declare that: | | | | | |
| | - | | | | | |
| My residence, mailing address, an | d citizenship are as stated | below next to | my name. | | | |
| I believe I am the original and first invent entitled: | inventor of the subject mat | ter which is c | laimed and | for wh | ich a patent is sou | ught on the |
| | | | | | | |
| DATA COMMUNIC | ATION SYSTEM AN | D METHO | DD FOR S | SELE | CTIVELY | |
| IMPLEMENTING FO | ORWARD ERROR C | ORRECTION | ON | | | |
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| | | | | | | |
| | (Title of t | he Invention) | | | | |
| the specification of which | | | | | | |
| • | | | | | | |
| is attached hereto OR | | | | | | |
| was filed on (MM/DD/YYYY) | | 200 | United State | e Annli | cation Number or P | CT International |
| | | | Office State | a Whhii | cation Number of F | or international |
| Application Number | and was ame | nded on (MM/E | D/YYYY) | | | (if applicable). |
| I hereby state that I have reviewed and amendment specifically referred to abo | understand the contents of th | e above identi | fied specificat | tion, inc | cluding the claims, a | is amended by any |
| I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international | | | | | | |
| filing date of the continuation-in-part ap I hereby claim foreign priority benefits | | 365(b) of any | foreign applic | ation(s | s) for patent or inver | ntor's certificate or |
| 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and | | | | | | |
| have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed. | | | | | | |
| Prior Foreign Application Number(s) | Country Foreign | Filing Date D/YYYY) | Priorit Not Clain | у | Certified Co YES | py Attached? NO |
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| Additional foreign application | on numbers are listed on a | supplementa | l priority dat | a she | et PTO/SR/02R at | tached hereto: |

[Page 1 of 3]
Burden Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents. Washington, DC 20231.

PTO/SB/01 (10-01)

Approved for use through 10/31/2002. OMB 0651-0032

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DECLARATION - Utility or Design Patent Application

| | tomer Number ar Code Label | 24504 | OR _ | Correspo | ondence address below | |
|---|-------------------------------|---------------------|------------------------|--------------|-----------------------|--|
| Name | | | | | | |
| Address | | | | | | |
| Address | | | | | | |
| City | | State | | Zip | | |
| Country | Telephone | e | | Fax | | |
| I hereby declare that all statements are made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon. | | | | | | |
| NAME OF SOLE OR FIRST INVENTOR: | | A pet | ition has been file | d for this u | unsigned inventor | |
| Given Name Clint S. (first and middle [if any]) | | Family or Surn | Name Co | oleman | | |
| Inventor's Clint S.Colu | naw | | | | Date 9/18/03 | |
| Residence: City Huntsville | State | AL | Country (| us c | Citizenship US | |
| Mailing Address 5706 Macon Drive |) | | | | | |
| Mailing Address 5706 Macon Drive |) | | | | | |
| City Huntsville | State | AL | Zip 35802 | | Country US | |
| NAME OF SECOND INVENTOR: | | A pet | ition has been file | d for this ι | unsigned inventor | |
| Given Name Charles E. (first and middle [if any]) | , Jr. | Family or Surn | | | | |
| Inventor's Charles E. | Polk S | ત્રે. | | | 4/18/03 | |
| Residence: City Athens | State | AL | Country U | | Citizenship US | |
| Mailing Address 612 Box Street | | | | | | |
| Mailing Address 612 Box Street | | | | | | |
| City Athens | State | AL | Zip 35611 | C | Country US | |
| Additional inventors are being named on the | nesup | plemental Additiona | I Inventor(s) sheet(s) | PTO/SB/02 | A attached hereto. | |
| | | | | | | |

DECLARATION - Utility or Design Patent Application

| | | • | | | | | |
|--|-------|----|----------------|-------------|-------------------|----------------|--------|
| NAME OF THIRD INVENTOR: | | | A pet | ition has b | een filed for thi | is unsigned in | ventor |
| Given Name Robert A. (first and middle [if any]) | | | Family I | | Barrett | | |
| Inventor's Bluft a Lan | wett | | | | | 9/18/ Date | 03 |
| Residence: City Madison | State | AL | | Country | US | Citizenship | US |
| Mailing Address 120 Jackson Avenue | | | | | | | |
| Mailing Address 120 Jackson Avenue | | | | | | | |
| City Madison | State | AL | | Zip | 35758 | Country | US |
| NAME OF FOURTH INVENTOR: | | | Apet | ition has t | een filed for th | is unsigned in | ventor |
| Given Name (first and middle [if any]) | | | Family or Surn | | | | |
| Inventor's Signature | | | | | | Date | |
| Residence: City | State | | | Country | | Citizenship | |
| Mailing Address | | | | | | | |
| Mailing Address | | | | | | | |
| City | State | | | Zip | | Country | |
| Additional inventors are being named on the supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto. | | | | | | | |

[Page 3 of 3]

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PTO/SB/81 (02-01) Approved for use through 10/31/2002. OMB 0651-0035
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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|---|--|--|--|--|--|
| POWER OF | Application Number Filing Date | | | | |
| | First Named Inventor | September 23,2003 | | | |
| ATTORNEY OR | | Coleman, et al. | | | |
| AUTHORIZATION OF | Error Correction | and Method for Selectively Implementing Forward | | | |
| AGENT | Group Art Unit | | | | |
| | Examiner Name | | | | |
| | Attorney Docket Number | 710101.1180 | | | |
| I hereby appoint: | | 7 10 101.1100 | | | |
| | | | | | |
| Practitioners at Customer N | lumber 24504 | Place Customer | | | |
| OR OR | 24504 —— | Number Bar Code | | | |
| OR | | Label here | | | |
| Practitioner(s) named below | r: | | | | |
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| as my/our attorney(s) or age | ent(s) to prosecute the application identif | fied above, and to transact all | | | |
| business in the United State | es Patent and Trademark Office connect | ed therewith. | | | |
| Please change the correspondence address for the above-identified application to: The above-mentioned Customer Number. OR Practitioners at Customer Number Practitioners at Customer Number Practitioners at Customer Number | | | | | |
| Firm <i>or</i> Individual Name | | | | | |
| Address | | | | | |
| Address City | Lo | | | | |
| Country | 51 | ate Zip | | | |
| Telephone | Fa | av I | | | |
| I am the: Applicant/Inventor. Assignee of record of the entire interest. See 37 CFR 3.71 Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96). | | | | | |
| | SIGNATURE of Applicant or Assign | | | | |
| Name Kevin | W. Schneider, Chief Technolo | gy Officer, ADTRAN, Inc. | | | |
| Signature | gnature L. W. Sland | | | | |
| Date 18-Sep. 03 | | | | | |
| forms if more than one signature is requ | | their representative(s) are required. Submit multiple | | | |
| X | | | | | |

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PTO/SB/96 (08-00)
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| STATEMENT | UNDER 37 CFR 3.73(b) |
|---|---|
| Applicant/Patent Owner:, Coleman, et al. | |
| Application No./Patent No.: | Filed/Issue Date: |
| Entitled: Data Communication System and Method f | for Selectively Implementing Forward Error Correction |
| | Corporation |
| (Name of Assignee) | (1996 of Assignee, e.g., corporation, partnernsip, university, government agency, etc.) |
| states that it is: | |
| 1. [X] the assignee of the entire right, title, and inter | rest; or |
| 2. [] an assignee of less than the entire right, title The extent (by, percentage) of its ownership in | |
| in the patent application/patent identified above by virt | ue of either: |
| A. [X] An assignment from the inventor(s) of the parecorded in the United States Patent and Transhich a copy thereof is attached. | tent application/patent identified above. The assignment was demark Office at Reel, Frame, or for |
| OR | |
| B. [] A chain of title from the inventor(s), of the pate shown below: | ent application/patent identified above, to the current assignee as |
| 1. From: | States Patent and Trademark Office at, or for which a copy thereof is attached. To: |
| The document was recorded in the United | |
| The document was recorded in the United Reel, Frame Additional documents I the chain of ittle a | States Patent and Trademark Office at , or for which a copy thereof is attached. |
| [] Copies of assignments or other documents in the [NOTE: A separate copy (i.e., the original assign) | |
| The undersigned (whose title is supplied below) is auth | norized to act on behalf of the assignee. |
| 18- Sep - 03 | Kevin Schneider |
| Date | Typed of printed name Signature |
| | Chief Technology Officer, ADTRAN, Inc. Title |

Docket No. 710101-1180
Page 1 of 5
(Patent Assignment)

ASSIGNMENT OF UTILITY PATENT APPLICATION

WHEREAS, the following parties:

Name

| Clint S. Coleman | 5706 Macon Drive, Huntsville, Alabama, 35802 |
|----------------------|--|
| Charles E. Polk, Jr. | 612 Box Street, Athens, Alabama, 35611 |
| Robert A. Barrett | 120 Jackson Avenue, Madison, Alabama, 35758 |

Address

hereinafter referred to as ASSIGNOR, has/have invented certain new and useful improvements ("invention(s)") as described and set forth in the below-identified utility application for United States Letters Patent entitled:

DATA COMMUNICATION SYSTEM AND METHOD FOR SELECTIVELY IMPLEMENTING FORWARD ERROR CORRECTION,

| which was: | | | |
|-------------|--|------------|------------------|
| | executed on even date herewith, | | |
| \boxtimes | filed with the United States Patent and Trademark | Office (US | PTO) on |
| | , and assigned Serial No. | , and | |
| | further described in U.S. Provisional application en | ntitled | , filed with the |
| | USPTO on , and assigned Serial No | | |

WHEREAS, ADTRAN, Inc., having a place of business at 901 Explorer Blvd, Huntsville, Alabama, 35806, hereinafter referred to as ASSIGNEE, is desirous of acquiring ASSIGNOR'S interest in and to said invention(s), said utility application, said provisional application, and any U.S. and foreign patents which are related to the same.

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by ASSIGNOR, ASSIGNOR has sold, assigned and transferred and does hereby sell, assign and

Docket No. 710101-1180 Page 2 of 5 (Patent Assignment)

transfer unto ASSIGNEE, and ASSIGNEE'S successors and assigns, (a) the entire right, title and interest, for the United States of America, in and to said invention(s), said utility application, and said provisional application and all the rights and privileges in any application and under any and all patents that may be granted in the U.S. for said inventions, including all corresponding provisional, continuation, continuation-in-part, divisional, reissue, and reexamination applications; and (b) the entire right, title and interest in and to said invention(s), said utility application, and said provisional application for all countries foreign to the U.S., including all rights of priority arising from them, and all the rights and privileges under any and all forms of protection, including patents, that may be granted in said countries foreign to the U.S. for them.

ASSIGNOR authorizes ASSIGNEE to make application for such protection in its own name and maintain such protection in any and all countries foreign to the U.S., and to invoke and claim for any application for patent or other form of protection for said inventions, without further authorization from ASSIGNOR, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

ASSIGNOR hereby consents that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of ASSIGNEE to apply for patent or other form of protection for said inventions, said utility application, or said provisional application and to claim the aforesaid benefit of the right of priority.

ASSIGNOR requests that any and all patents for said inventions be issued to ASSIGNEE in the U.S. and to ASSIGNEE in all countries foreign to the U.S., or to such nominee as ASSIGNEE may designate.

ASSIGNOR covenants and agrees that, when requested, ASSIGNOR shall, without charge to ASSIGNEE but at ASSIGNEE'S expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable, or convenient in connection with the patent applications, patents, or other forms of protection of said invention(s), and for the defense and protection thereof if challenged in the court of law.

ASSIGNOR authorizes ASSIGNEE or its agents to insert, on ASSIGNOR's behalf, the filing date and/or serial number above pertaining to the utility application and/or the provisional application, if not known as of the date of execution of this document.

Docket No. 710101-1180 Page 3 of 5 (Patent Assignment)

| | Clint S. Coleman |
|--------------------------|--|
| | Clint S. Coleman |
| Date: 9/18/03 | |
| | |
| United States of America | |
| State of Alabama | |
| County of Madison | |
| On this day of | , 20 <u>23</u> , before me personally came Clint S. d above and who executed the foregoing |
| | Marka J. Sow Notary Public |
| | April 2, 2006 My Commission Expires (Date) |

Docket No. 710101-1180 Page 4 of 5 (Patent Assignment)

| Charles & | Folle, Jr. |
|---|---------------------------------------|
| Charles E. Polk, Jr. | |
| Date: $\frac{9/18/03}{}$ | |
| United States of America | |
| State of Alabama | |
| County of Madison | |
| On this <u>18</u> day of <u>September</u> , 20 <u>03</u> , before me person. E. Polk, Jr. to me known to be the individual described above and who execut instrument, or acknowledged execution of the same. | onally came Charles ted the foregoing |
| Notary Public | . San |
| My Commission Expires | s (Date) |

Docket No. 710101-1180

Page 5 of 5

(Patent Assignment)

My A. Barrett

Date: 9/18/07

United States of America

State of Alabama

County of Madison

On this 18 day of September, 2003, before me personally came Robert A. Barrett to me known to be the individual described above and who executed the foregoing instrument, or acknowledged execution of the same.

Notary Public

April 2, 2006
My Commission Expires (Date)